REMARKS

Reconsideration of this application as amended is requested. By this amendment Applicants have corrected numerous obvious typographical and grammatical errors in the specification; and have amended claims 16 and 19. Claims 1-21 remain in the case.

The Examiner objected to claims 16 and 19 for improper dependencies. Applicants have amended claims 16 and 19 to correct the claim dependencies.

The Examiner rejected claims 1, 6-12, 16 and 17 under 35 U.S.C. 101 as being directed to non-statutory subject matter; rejected claims 1-5 under 35 U.S.C. 102(b) as being anticipated by Faust et al (U.S. Patent Application Publication 2003/0058243 – "Faust"); and rejected claims 6-10 and 16 under 35 U.S.C. 103(a) as being unpatentable over Faust in view of Randall et al (U.S. Patent Application Publication 2003/0036864 – "Randall") or in view of Zocchi (U.S. Patent Application Publication 2004/0174818).

Applicants' claimed invention is a method of providing a three-dimensional (3D) correlated data display representing multi-domain measurements of system operation. A plurality of sample streams representing the different domain measurements are acquired. The sample streams are then temporally aligned with each other. Finally waveform data representing the time aligned sample streams are generated which represent sample magnitudes as a function of time and Z-axis information adapted to illustrate at least one inter-stream timing relationship.

The Examiner states that claims 1, 6-12, 16 and 17 are directed to a method which receives a plurality of sample streams representing signal measurements, manipulates the sample streams and generates waveform data with the sample streams. From this the Examiner concludes that the claims recite a mathematical algorithm that generates waveform data from sample streams with no limitations for a physical transformation or production of a useful, concrete and tangible result, i.e., are non-statutory. Applicants submit that the Examiner's reasoning is fallacious. There is obviously a physical transformation of sample data to display data, i.e., sample data to graphic data, which produces a useful, concrete and tangible result in that it enables an operator to observe the characteristics of the signals being measured. This is what test and measurement instruments do -- acquire data samples and transform the data

samples into display data. Thus claims 1, 6-12, 16 and 17 are deemed to recite statutory subject matter.

The Examiner rejected claims 1-5 as being unpatentable over Faust stating that Faust (Fig. 1, paragraph 55) teaches historical measurements of waveforms comparable to receiving a plurality of sample streams representing respective signal measurements made in different measurement domains; Faust (Fig. 6, paragraph 55) teaches a waterfall display of the sample waveforms with magnitude display along one axis and time along the z-axis for more than one waveform comparable to temporally aligning the sample streams and generating waveform data associated with the sample streams representing sample magnitudes as a function of time and including Z-axis information adapted to illustrate an inter-stream timing relationship; that Faust (Fig. 6) teaches a waterfall display comparable to a three-dimensional representation recited in claim 2; that Faust (Fig. 6) teaches a perspective view comparable to a perspective view recited in claim 3; that Faust (paragraph 59) teaches controls for the display comparable to a manipulable representation recited in claim 4; and Faust (Fig. 6) teaches a perspective view comparable to rendering two-dimensional waveforms in perspective recited in claim 5. Applicants respectfully traverse these erroneous and nonobvious conclusions by the Examiner.

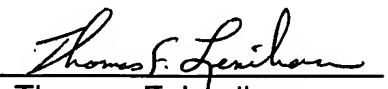
In contradistinction to Applicants' claimed invention Faust shows a client/server arrangement that allows measurement instruments to transmit measurement data to a client in lieu of image (display) data, with the client generating and updating a waveform display which may include three-dimensional displays such as waterfall and spectrogram displays, i.e., Faust pertains to the delivery and display of measurement instrument data via a network. Fig. 1 shows a preferred relationship between measurement instruments, which may take a variety of forms including oscilloscopes, logic analyzers, spectrum analyzers, etc., and a remote computer (client). A server reads acquired bytes of data from the instruments, prepares the data for transmission via a particular network protocol, and the transmits the data to the client requesting the data. The client may generate complex and/or 3-D displays, such as where time is along the z-axis, amplitude is along the y-axis and frequency is along the x-axis for a spectrum display. Only the data from a single instrument or measurement domain is displayed at any time, i.e., only a single data stream is displayed.

Applicants recite in claim 1 receiving a plurality of sample streams representing respective signal measurements made in differing measurement domains and temporally aligning the streams. Faust does not teach or suggest that the measurement data from the different measurement instruments are combined into a single display, therefore there is no teaching or suggestion of a necessity for temporally aligning the different measurement data streams with each other. In fact Faust teaches that the client receives data from a requested instrument so only one measurement data stream is received. Therefore, contrary to the Examiner's conclusion, there is no temporal alignment of the various measurement sample streams disclosed in Faust. Since Faust teaches displaying the waveform only from a single instrument, i.e., from a single measurement domain, Faust does not teach or suggest generating waveform data such that z-axis information illustrates "at least one inter-stream timing relationship" as is recited in claim 1. Thus claim 1 is deemed to be allowable as being neither anticipated nor rendered obvious to one of ordinary skill in the art by Faust.

Since the remaining claims 2-21 are dependent from claim 1, which is deemed allowable, these claims also are deemed to be allowable as depending from an allowable claim and reciting additional substantial limitations.

In view of the foregoing amendment and remarks, allowance of claims 1-21 is urged and such action and the issuance of this case are requested.

Respectfully submitted,

By 
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